

Texas Facilities Commission's Facility Management Strategic Plan

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Maintain, Operate & Manage

- 54 Office Buildings
- 10 Warehouses
- 55 Parking Lots
- 4 Central Utility Plants

Utility Costs (approx)

- \$15 million – Elec
- \$2.3 million – Gas
- \$2.1 million – Water

Deferred Maint. Plan

- \$400 million
- 10-year plan
- Started 2008

Building Operations & Plant Management

Mission. The Division of Building Operations & Plant Management is strongly committed to identifying and implementing *practical* ways of managing resources with a commitment to continuous improvement.

Vision. The Division of Building Operations & Plant Management leads the way in providing the highest quality facilities and utility services to state agencies with a commitment toward *fiscal responsibility* and *stewardship of resources*.

Facility Strategic Plan

- High Performance Building Approach
 - Envelope
 - Load Reduction
 - (Re)Design
 - Advanced Tactics
- Building Automation
 - Sub-metering
 - Controls
- Commissioning
 - Assessment
 - Continuous
- Facility and Energy Management System
 - Facility Management
 - Energy Management

High Performance Building Approach

Building Envelope

- Window Film
- Roof

Load Reduction

- Motors/VFD
- Lights
- Equipment

(Re)Design

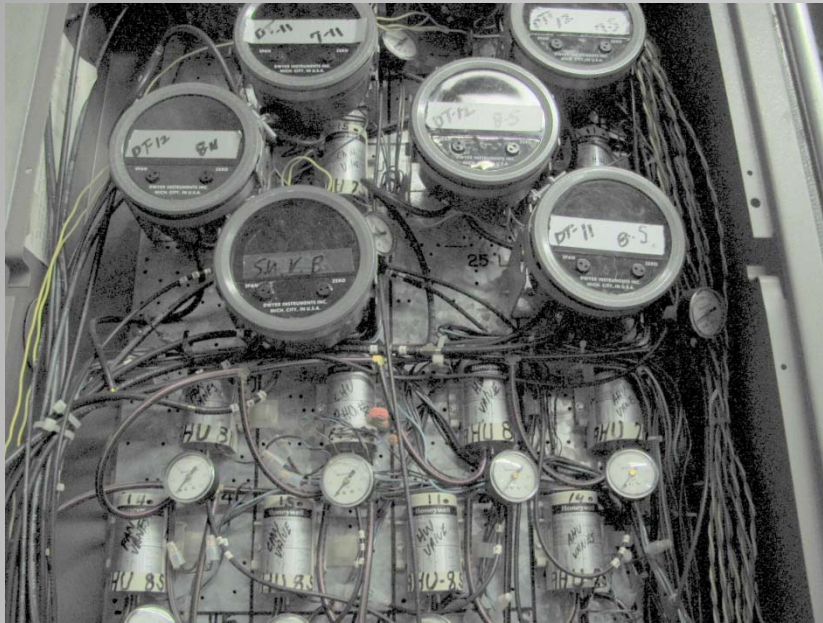
- Loops
- Panels
- Distribution

Advanced Tactics

- TES & Loop
- Load Shedding



Pneumatic



DDC



Building Automation

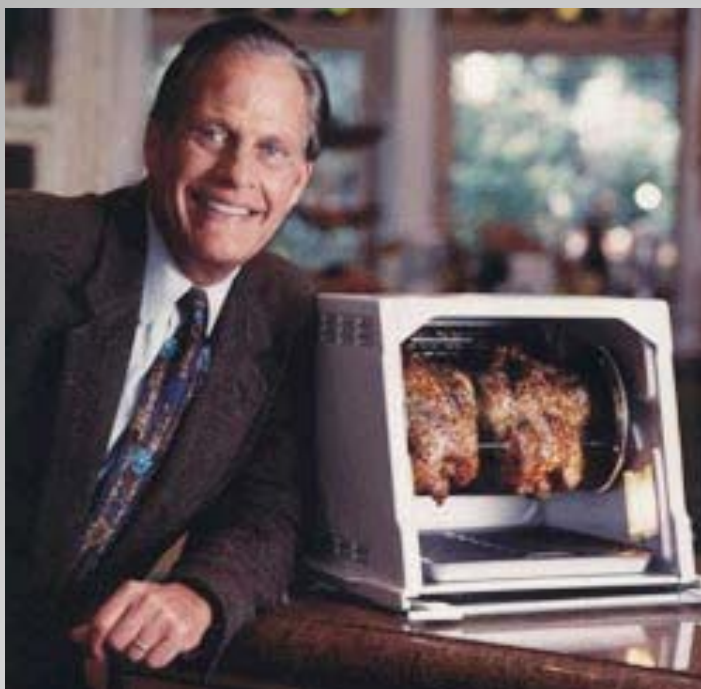
Pneumatic

- Pneumatic compressor and air distribution piping.
- Controls tend to drift out of calibration.
- Susceptible to leaks.
- Compressor is a single point of failure.
- Reconfiguration requires hardware and piping.
- Can not be remotely monitored.
- Manual intervention required to make adjustments.

DDC

- No pneumatic compressor or air distribution piping.
- Can be remotely monitored, adjusted or (re)configured.
- Software calibration.
- Controls are distributed, so no single point of failure.
- Precise control of equipment.
- Requires less physical space.
- Reduces utility cost.

Building Automation



Commissioning

If you treat your buildings like a RONCO Rotisserie...expect to spend money on utilities.

What is Commissioning?

- Commissioning
- Re-commissioning
- Retro-commissioning
- Continuous Commissioning

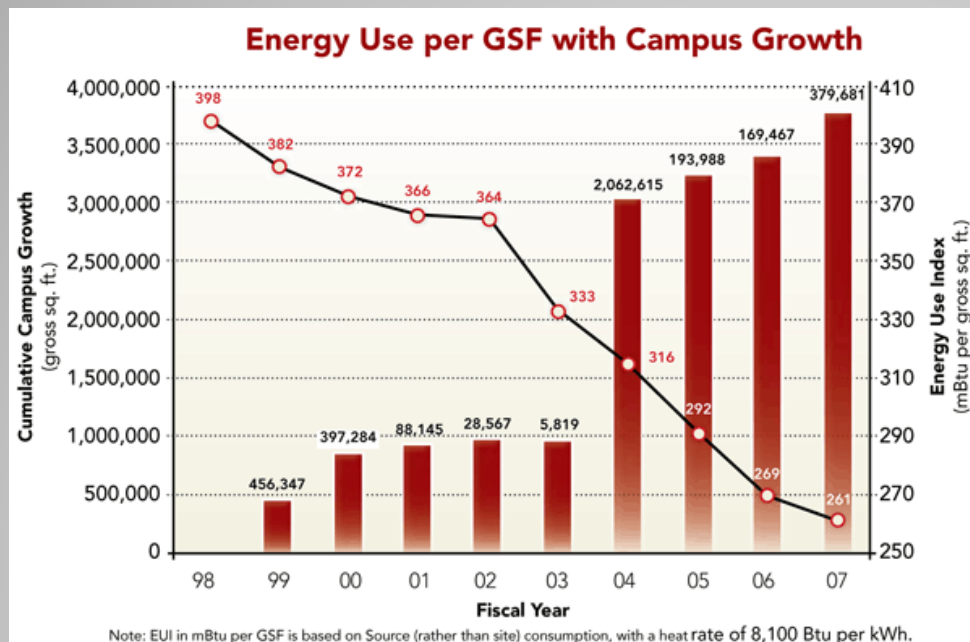
Commissioning

Assessment

- 30 buildings
- CC Opportunities
- O&M Improvements
- Energy/Capital Improvement Opportunities
- Quick Payback

Implementation

- Levering DM funds with ARRA
- M&V
- Coordination with DM
- Coordination with Building Automation Project



- Current Systems
 - Work order system
 - Facility Condition Assessment
 - Building Automation Systems
 - Project Management
 - Drawings on File
 - Load Profiler

...and other disparate systems.

Facility & Energy Management System



- Facility Management
 - CMM
 - Drawings/Documents
 - Capital Budget
 - Facility Condition
 - Project Management
 - Service Level Agreements
- Energy Management
 - Sub-metering
 - Trending
 - Commissioning
- Portal/Dashboard
 - Communication
 - Management
 - Visibility

Facility & Energy Management System

Q&A

Texas Facilities Commission